

REMARKS

Previously, claims 1-10 were pending in this continuation application. After the Applicants have reviewed the Office Action from the Examiner, claims 1-3, 5-10 are amended, and claim 4 remains as previously presented.

First, the Applicants regard this invention as a biscuit with a filling of a combined formulation desired by dogs, a dog bone shape, and a raised edge upon the entire upper circumference of the biscuit. The filling remains shelf stable for approximately 15 months as a gel and has a soluble solids level in excess of 65 Brix, that is sugar content measured by a hydrometer. The formulation of the present invention results in two separate phases –filling and biscuit- having different water activities over lengthy time periods. The filling retains its moisture away from the biscuit. Thus, two separate phases in contact with each other maintain different moisture levels and different water activities over time without compromising flavor or softening the biscuit. Further, the filling has a water activity between 0.65 and 0.85.

Second, the Examiner has rejected claims 1-9 as obvious under 103(a) over the US Pat. Nos. 4032665 to Miller, 4039687 to Weyn, 4371556 to Pitchon, 4904494 to Spanier, 4366175 to Brown, 5532010 to Spanier, 4822626 to Spanier, 3808340 to Palmer, and 5731029 to Karwowski, and Japanese publication 59045836 to Mukai. Beginning with Miller, Miller describes a simulated bone generally white in color and with a shear resistance of at least 250 pounds. The simulated bone comes from dough that includes wheat flour of approximately 31% by weight, Ex. 1. Miller determined that the moisture level of its dough determined the shear strength of its finished simulated bone, col. 4 lines 16-19. The present invention though utilizes wheat flour of at least 45% which exceeds the flour of Miller by nearly 50% as a dog chew. The present invention does not focus upon shear strength but rather shelf stability over time.

Weyn provides an animal food using synthetic proteins blended with farinaceous materials and grains, col. 2 lines 19-23, Ex. III. Weyn also then describes various culture media for microorganisms that consume hydrocarbons and produce proteins, see e.g. col. 5 lines 13-14. Weyn includes wheat middlings within a foursome of ingredients such that wheat middlings comprises about 14.5% of the food, col. 5 line 47. The present invention though uses 20% wheat middlings which exceeds that amount used in Weyn by a 33%. Further, the present invention has brewers yeast of 1.8% or less while Weyn uses 5% yeast, claim 1, wheat germ at less than 0.65% in contrast to Weyn's 3%, col. 5 line 47, and bone and meat meal of under 12% unlike the 1% of steamed bone meal in Weyn, claim 1.

Pitchon illustrates a dog food with a nutritionally balanced formula supplemented with specially prepared ground soybeans, claim 1. The soybeans are roasted, coated with soybean oil, and then ground, col. 6 lines 50-57. After adding the ground soybeans to the formulation, Pitchon applies a spray of liquefied tallow upon a dried form of the formulation, col. 7 lines 19-21. The coated soy beans are then ground while warm and returned to the formulation, claim 1. Though Pitchon uses wheat, corn, soybeans, and other ingredients similar to the present invention, the present invention does not spray or use liquefied tallow as a claimed component. Pitchon describes soybean oil being used in a minimum amount of 2%, claim 1, however, the present invention uses less than 2% soybean oil in its formulation as in amended claim 3 and claim 4.

Spanier '494 provides a chewy, semi-plastic dog food that includes about 12 to 30% gelatin among other ingredients, abstract, claim 1. The gelatin makes the dog food chewy but not tough or stringy, col. 5 lines 21-22. In contrast, the present invention lacks gelatin as an ingredient and attains a biscuit form of a low moisture level, pg. 14 lines 378-381, 400-402, that leads to a crunchy dog foodstuff as opposed to a chewy one.

Spanier '626 describes coated dog biscuits that have dough enrobed by a coating that is then baked. Spanier '626 explains that the dough may "have a recess or depression molded in the top surface," col. 10 lines 31-32. The depression is illustrated in Figs. 4-6 of Spanier and descends from the top surface into the main body of the dough piece. On the other hand, the present invention has a raised edge, as at 4, formed upon the perimeter of a biscuit that bounds a cavity upon the top surface of the biscuit, spec. pg. 12 lines 342-344. The cavity within the raised edge does not penetrate the rest of the biscuit and the filling remains upon the top surface. The Applicants have amended claim 1 to clarify the location of the raised ridge and of the cavity.

Brown shows a coated biscuit for pets that has core material dipped in liver based slurry that is then baked, col. 6 lines 41, 51-53. The baked slurry becomes a glazed meaty substance that surrounds the core material, *Id.* But, the present invention has a meaty filling deposited within the cavity inside of the raised edge and not a coating upon the entire exterior of the biscuit. Though Brown discloses a weight percentage of the coating, the present invention does not use a coating but rather a filling. Claims 5, 6 have been amended to avoid approaching the weight percentage of Brown in the ratio of meaty filling to biscuit of the present invention.

Though the previous patents show some of the various ingredients of the present invention, the Applicants assert that no one patent shows all of the ingredients. Further, the previous patents do not show the proportions of ingredients used in the present invention. The Applicants assert that the large differences in amount of ingredients between the present invention and the Miller and Weyn patents and filling within a cavity upon the top of a biscuit in contrast to Spanier '626 do not provide a design incentive for one of ordinary skill in the art

to reach the quantities of the ingredients and the filling location of the present invention.

Then for claim 7, the Spanier '010 mentions a dog biscuit having water activity of .70 or less. Water activity describes water present within a foodstuff subject to various pressures yet suitable for microbiological life, that is molds and fungi, spec. pg. 7 lines 187-195. The Applicants have amended the water activity cited in claim 7. Regarding the other characteristics, the Applicants note the patents to Bone, Nos. 4,006,266 and 4,273,788 both disclose water activity values, spec. pg. 4 lines 94, 98 and the U.S. Pat. No. 4,563,363 to Yoon has Brix in its claim 1 for candy. The Applicant asserts that the characteristics in claim 7, used in the pet food manufacturing industry, remain suitable to describe the present invention.

On to claims 8, 9, Spanier '010 describes a coated biscuit and its processing. This coated biscuit shares some ingredients with the present invention. The Applicants have amended claims 8, 9 to avoid the ranges of those in Spanier. The publication to Mukai, No. JP59045836 describes a formed food for filling. This food begins with fluid foods, that are then heat sterilized. The sterilized food then undergoes blending with viscosity increasing agents, including agar. Mukai then describes agar being used at a concentration of 1.5 to 4.0%, preferably in the 2-3% range. Claims 8, 9 are amended to include agar at a concentration below that preferred in Mukai. Regarding salt and mechanically deboned beef, Spanier' 010 describes a biscuit that has a liquefied coating subsequently dried. The liquefied coating includes salt and meat for dipped application upon the entire exterior of a biscuit. The present invention though includes salt and meat within its meaty filling contained within the cavity but not dipped or applied upon the remainder of the biscuit. Because the meaty filling of the present invention need not cover the entire biscuit surface, a liquefied form is not required in the present invention. Spanier '626 then discloses finely divided

meat in its coating, col. 7 lines 62-63, and preferably dehydrated meat, col. 7 line 67.

Palmer then describes a core of lower cost ingredients surrounded by a thick cover of meat and other palatable ingredients suitable to livestock. Palmer mentions propylene glycol at 11% of the coating, col. 7 line 38, while the present invention uses propylene glycol at less than half of that percentage, claims 8, 9. Further, Palmer places the core into a tumbler for coating evenly about the surface of the core, col. 7, lines 61-63 and col. 4, lines 59-61. As before, the present invention does not coat a biscuit entirely, but rather provides a meaty filling upon one surface of the biscuit within the ridge. Karwowski's patent '029 describes a method to make jerky using various temperatures and times, claims 1 thru 5. The '029 patent also describes humectants, including high fructose corn syrups and sucrose with humectants having a concentration of 1 to 5%, col. 8 line 20, and sugars having a concentration of 2 to 15% col. 9 line 3. The present invention though claims high fructose corn syrup of approximately 30% and sugar of approximately 20%. The Applicants assert that both of those concentrations far exceed those shown in the '029 patent.

The Examiner has cited the case of *In re Levin* where the court required co-action or other activity between ingredients of a composition. The ingredients of the present invention, particularly the meaty filling, operate as two phases of matter with different moisture contents. Moisture generally migrates from a high moist phase to a low moist phase. Here the filling does not shed moisture to the biscuit over time, spec. pg. 8 lines 222-224, pg. 17 line 481. The ingredients of the present invention prevent moisture transfer from a gel, or meaty filling, into a dry carbohydrate, or biscuit at room temperature, pg. 13 line 346, pg. 16 line 461. The meaty filling becomes a gel at room temperature and locks in the moisture, pg. 16 line 462. Further, the meaty filling upon the biscuit remains secure to the dry biscuit and does not delaminate, pg. 17 line 474, and does not shrink from

the raised edge, pg. 17 line 484. The activity of the ingredients of the present invention retains moisture within the meaty filling which prevents degradation of the biscuit after a year in storage.

And regarding claim 10, Dahle describes a cookie dough with a jam filling in Example 1. Dahle has its jam placed within a depression, col. 7 lines 44-46 ... and then baked. Dahle then reveals that the jam forms a membrane layer than prevents further moisture migration, *Id.*, or a barrier film, claim 1. On the other hand, the present invention lacks a depression but rather has a raised edge, as at 4, formed upon the perimeter of a biscuit that bounds a cavity upon the top surface of the biscuit, spec. pg. 12 lines 342-344. The cavity supports the majority of the meaty filling but the holes allow some filling to enter into the biscuit. Upon solidifying, the filling forms cylinders, shaped to the holes, that mechanically secure the filling into the cavity, spec. pg. 12 lines 327-328. Dahle describes a membrane, or barrier layer, beneath the jam, or high moisture phase product, that prevents permeability into a biscuit or pizza crust beneath the jam or sauce, claim 1. The membrane or barrier layer of Dahle prevents the jam from entering into the cookie where the filling of the present invention flows into the holes. The Applicants have amended claim 10 though to clarify the securement provided by the filling within holes.

The examiner's attention is directed to the case of *KSR Int'l Co. v. Teleflex, Inc.*, 82 U.S.P.Q. 2d 1838 (U.S. 2007). The court discussed that design incentives and other market forces can prompt a person to make a predictable variation upon existing products. *Id.* Here though, The Applicants assert that the large differences in amount of ingredients between the present invention and the Miller and Weyn patents and filling within a cavity upon the top of a biscuit in contrast to Spanier '626 do not provide a design incentive for one of ordinary skill in the art to reach the quantities of the ingredients and the filling location of the present invention. The Applicants assert that Miller's and Weyn's markedly lower

amounts of some ingredients and higher amounts of Pitchon's and Spanier '494's ingredients do not provide an incentive or do not follow a market force that makes the present invention obvious. The ingredients and processes of Miller, Weyn, Brown, Spanier, and Palmer do not predict the present invention of a meaty filling retaining its moisture while an adjacent biscuit remains dry after at least a year.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Favorable action by the examiner is respectfully requested.

Respectfully Submitted,



Paul M. Denk
Attorney for Applicant
Pat. Off. Reg. No. 22,598
763 S. New Ballas Rd. Ste. 170
St. Louis, MO 63141
(314) 872-8136